

paying such low tariffs could substantially undercut the incumbent cable operator, thereby quickly attracting subscribers.

Indeed, apparently this situation is unfolding in Dover. The programmer on the Dover network -- FutureVision -- was reported in the local press in March 1996 to be offering subscribers a "lifetime guarantee that basic cable rates will be 20 percent lower than its competitors." Moreover, free installation is offered to "most new customers" along with free cable boxes.⁶ Not surprisingly, FutureVision reported "the astounding figure that nearly four out of five households in their East Dover connection area subscribe, or want to subscribe to the new cable television system."⁷

A few weeks later, the press reported that the incumbent cable company, Adelphia Cable Communications Corp., "announced 25 percent price cuts for many of its Dover Township customers."⁸ According to the report, "FutureVision has been expecting Adelphia to respond and is preparing its own counter-response."⁹ FutureVision officials went on to say that "their plan is to reap the bulk of their revenues from advertisers to the point where television households will get their cable television free."¹⁰ Attainment of such a goal is facilitated, of course, when monopoly telephone ratepayers bear the financial shortfall.

⁶"It's total war, 'We want to annihilate them' FutureVision general declares," *Ocean County (New Jersey) Observer*, Feb. 23, 1996 at A4

⁷*Id.* at A1.

⁸"Cable firm, feeling heat, trims prices," *Asbury Park (New Jersey) Press*, March 20, 1996 at A1.

⁹*Id.* at A5.

¹⁰*Id.*

The potential for cross-subsidization is no less in an OVS environment. If more than telephone stand-alone cost is assigned to telephony, program carriage charges could be reduced to below incremental cost, with programmers accordingly able to underprice the incumbent. If the OVS entrant can offer anything like a 20 percent discount on monthly service plus free installation and cable boxes, while providing a variety and quality of service no less than the incumbent's, we can easily anticipate a rush of households to sign up. Further rate cuts in counter-response to any incumbent response can also be expected in OVS services, with telephone subscribers sharing the financial burden.

The Inadequacy of Price Caps as a Safeguard

At the same time, the adoption of price caps is commonly regarded as an effective safeguard against cross-subsidization. Even if excessive costs are allocated to telephony, telephone subscribers cannot be forced to pay higher rates if price caps prevent any increase in rates. In that event any excess costs allocated to telephony would cause a reduction in profits at the expense of shareholders.

This view of price caps would be correct if it were possible to design and enforce a "pure" price regime in which prices are totally divorced from costs. However, pure price caps do not exist nor can they reasonably be expected to exist. Regulators cannot ignore the company's profits and losses. If profits are persistently high, regulators would be under strong public pressure to revise the price cap formula. Conversely, low profit levels or losses would bring pressure to adjust the formula in the other direction.

Price cap regulation can best be regarded as resembling rate-of-return regulation with a formal time lag. Price cap regimes typically specify a set of prices with upward adjustments for inflation and downward adjustments to reflect productivity growth. Abstracting from changes to

reflect other exogenous factors, consumers can expect real prices to fall depending on the size of the productivity growth factor -- commonly called the "X-Factor." The price cap regime is subject to formal review generally at specified intervals (typically three or four years) whereupon past performance is evaluated (including the historic rate of return) and adjustments made in the productivity factor and other elements of the formula to bring the projected rate of return in line with what regulators would regard as just and reasonable. In no sense can the company's prices be regarded in the long-run as frozen irrespective of costs, as would occur in a pure price cap regime.

Most notably, Professor Alfred Kahn expresses well the extreme difficulty of implementing a pure price cap regime.

To be sure, we have to my knowledge yet to see a scheme of pure price regulation. All of the schemes of which I am aware contemplate review within a few years of how they are working. Since the indexation formulas are inevitably based on estimates--in particular, estimates of how the costs of the regulated companies may be expected to behave relative to the basis for indexation (such as the Consumer or GNP price index)--it is difficult to imagine a scheme under which the government would surrender for all time the option of testing the accuracy of those estimates against actual experience. Such reexaminations have typically involved some correction of the formula if profits prove to be too high or too low--in which event price regulation turns out to resemble rate of return regulation.¹¹

A number of states have adopted price caps for intrastate services, while the Commission's price cap regime encompasses interstate carrier access charges. By no stretch of the imagination can these price cap regimes be regarded as decoupling prices from costs. The New Jersey plan, for example, permits an increase (or requires a decrease) in the individual rates for its regulated services by the percentage change in the prior year's Gross National Product Price Index minus

¹¹Alfred E. Kahn, *Review of Regulatory Framework*, Canadian Radio-television and Telecommunications Commission, Telecom Public Notice CRTC 92-12. Filed on behalf of AGT, April 13, 1993 p. 21. Emphasis in original.

a 2 percent productivity growth factor.¹² Accordingly, rates are to fall by 2 percent per year in real terms (subject to possible adjustments to reflect other exogenous factors).

Three aspects of the New Jersey plan show how far it is from a pure price cap regime. First, the plan stipulates that the company will not be required to reduce real rates during any year in which the average intrastate rate of return on equity for its rate regulated services for the applicable twelve-month period falls below 11.7 percent. Consequently, if shifting costs onto local telephony reduces the return to below 11.7 percent, the company can pass these costs onto local subscribers by denying them a rate decrease to which they otherwise would have been entitled.

Second, if the company's intrastate return on equity exceeds 13.7 percent, the excess earnings are to be shared equally between the company and its customers. Consequently, by shifting costs onto local telephony, the company may avoid triggering this sharing provision, again denying customers benefits to which they otherwise would be entitled.

Third, the price cap plan expires at the end of 1999. Consequently, costs shifted to local telephony in the next few years will provide the basis for a subsequent lower X-Factor. In this event, telephone customers will face smaller real rate decreases after 1999 than otherwise.

Another instructive example is the California PUC decision to impose a rate freeze -- pending future review -- as a substitute for the previous 5 percent productivity factor set for Pacific Bell's non-competitive intrastate services. The rate freeze is equivalent to establishing a productivity factor equal to the rate of inflation. With inflation currently at about 3 percent, the PUC's decision in effect reduces the productivity factor from 5 percent to 3 percent. The California PUC based its decision in part on grounds that "[t]his policy offers an opportunity of fair returns to shareholders [my underlining] by moving regulation of local exchange carriers in

¹²*Plan for Alternative Form of Regulation for New Jersey Bell Telephone Company*, New Jersey Board of Regulatory Commissioners, Docket No. T092030358.

a market direction."¹³ The PUC further concluded that "in an era in which the price cap formula is producing price reductions [underlining in original], the resulting declines in revenues can jeopardize a firm's ability to finance capital investments, particularly infrastructure."¹⁴ Again, this action is not unlike what one would expect with cost-based rate-of-return regulation, where regulators' decisions about future pricing policies take into account the firm's financial condition.

The key difficulty illustrated throughout arises from the control by the LEC over the X-Factor to which its prices are subject. With that control, it is able to game the system with the consequence that it is able -- again with a time lag -- to pass additional costs to its monopoly subscribers as a way to subsidize its competitive ventures, including OVS services.

An Illustrative Example. To appreciate more clearly the potential magnitude of cross-subsidies, consider a hypothetical example. Suppose that price caps are imposed on telephone company "Y," according to which prices are to be adjusted to reflect general inflation minus an annual productivity growth factor of 4 percent. Suppose, further, that in the absence of video service, subsequent formal regulatory reviews of the price cap plan lead to continuation of the 4 percent growth factor as reasonable in light of the costs reported by Y as properly attributable to the services subject to price caps. Thus, in the absence of video service the capped prices charged by Y are forced downward by 4 percent annually in real terms.

Now suppose, in contrast, OVS service is included. Because of Y's attempt to shift some of the OVS service costs to the monopoly services, the costs reported for the services under the price cap regime are higher over time that would have been the case without OVS service. Because of the difficulty of disentangling the costs of separate services that jointly use the LEC's

¹³California PUC. *Interim Opinion*, I.95-05-047. December 26, 1995 at 2.

¹⁴Id. at 2, 3.

transmission facilities, regulators may fail to detect the effects of Y's cost shifting. Without regulators challenging the costs attributed to price-capped services, subsequent reviews of the price cap regime show that a prospective 2 percent annual productivity adjustment factor is reasonable. With the 2 percent annual adjustment, instead of 4 percent in the absence of the competitive service, real prices subsequently fall by only 2 percent yearly instead of 4 percent. Thus, if the average monthly price of local price-capped services is \$15.00 per subscriber at the beginning of year 1 (when the 2 percent, instead of the 4 percent, productivity factor is introduced) the price will fall to \$13.56 instead of \$12.23 at the beginning of the sixth year.¹⁵ The difference of \$1.33 per month is the subsidy per telephone subscriber paid to the OVS service; that is, the amount by which telephone users are worse off, during the sixth year, as a consequence of the cost shift to them from the competitive service.

Moreover, this subsidy of \$1.33 is subject to leveraging. Suppose that during the sixth year, 20 percent of telephone subscribers also subscribe to the LEC's OVS service. This means that the company has five times the \$1.33 or \$6.65 as a per-month subsidy per OVS subscriber. This leveraged amount, along with the subsidies during the earlier years, would provide the LECs with a notable advantage -- all the more so during the early years when the LEC is seeking a foothold in the video market, for example, by deeply discounting the incumbent's monthly rates and offering free installation and converter boxes.

Consequently, since price caps are not an adequate safeguard against cross-subsidization, what effective protections can the Commission adopt? In response, close control over cost allocations between OVS services and telephony is critical, while use of a separate subsidiary for OVS services also merits serious consideration.

¹⁵ $\$12.23 = (0.96)^5 \times \15.00 ; $\$13.56 = (0.98)^5 \times \15.00 .

The Critical Role of Cost Allocations

In its *Notice of Proposed Rulemaking*, the Commission seeks comment on "what steps local exchange carriers should be required to take prior to certification with respect to establishing cost allocation procedures between regulated and unregulated services under Part 64 of the Commission's rules."¹⁶ These rules are of key importance to protecting against cross-subsidization, because they govern the segregation of costs for providing non-competitive telecommunication services from the costs of competitive services such as OVS.

To safeguard against cross-subsidization, procedures must be formulated to ensure that the costs allocated to the regulated sector are no greater than the stand-alone cost of whatever telephone services are to be provided on the common transmission network with OVS. Otherwise, as earlier explained, OVS will bear less than its incremental cost, resulting in a subsidy from telephony. Under the joint-cost rules, each service is assigned its "attributable" cost (as a proxy for incremental cost) plus a share of common cost. After the costs attributable to each service in question are estimated, common costs are allocated to each service in proportion to directly attributable costs.¹⁷ Thus, if the costs attributable to OVS are \$25 and those attributable to telephony are \$50, OVS would be assigned one-third of the common cost. Consequently, any underspecification of OVS attributable cost would have a magnified effect on cost allocations. Not only would the assigned attributable or incremental cost of OVS fall below the true level, but the common costs assigned to OVS would fall as well.

Of critical importance, will the Commission put into place cost allocation procedures to forestall any attempt by the IEC to underspecify the cost attributable (i.e., the incremental cost)

¹⁶*Notice*, para. 70.

¹⁷Separation of Costs of Regulated Telephone Service from Costs of Non-regulated Activities. *Report and Order*, CC Dkt. No. 86-111, 2 F.C.C. Rcd. 1298 (1987), para. 113.

of OVS, with the shortfall consequently assigned to telephony? To accomplish this task, the Commission cannot simply stand ready to accept whatever cost figures the LEC sets forth, but must have the capability (and the will to use it) to verify that the proposed assignment is no less than the cost telephone ratepayers would have incurred for the stand-alone network having the same telephony capability as that to be offered on the shared OVS network.

To succeed, the Commission must be able to estimate telephony stand-alone costs and to use those estimates as a ceiling for the assignment of cost to the regulated telecommunications sector.¹⁸ Only in that way can monopoly telephone ratepayers be assured of no higher prices than they would have paid in the absence of OVS.

The cost allocations process is all the more critical in light of the 1996 Act's structure that the rates for OVS carriage be "just and reasonable" and "not unjustly or unreasonably discriminatory."¹⁹ The marketplace itself can be relied upon to control carriage rates if cost allocations are appropriately in place to forestall any threat of cross-subsidy. In the absence of cross-subsidy, and with OVS providers facing strong competition from incumbent cable operators and other video suppliers, market pressure will generally assure the justness and reasonableness of OVS rates.

However, in the absence of appropriate cost allocations, the threat of OVS rates being unreasonably low, as a reflection of subsidies from telephone ratepayers, would be a continuing threat. Consequently, the carriage rates charged by OVS operators would be under constant challenge -- probably on a case-by-case basis. Such a burdensome regulatory process imposed on

¹⁸As earlier explained, since the incremental cost of OVS service is equal to total network cost minus telephony stand-alone cost, this ceiling on costs assigned to telephony would ensure that costs assigned to OVS service would at least cover OVS incremental cost.

¹⁹1996 Act, Sec. 653(b)(1)(A).

all participants can best be avoided by properly allocating costs in the first place, to level the playing field, and then relying on the competitive marketplace to assure that rates for individual OVS services remain within just and reasonable bounds.

A Separate Subsidiary for OVS

Another protection would involve placing OVS services within an affiliate separate from the LEC. This separation might be patterned after the separate affiliate safeguards specified in Section 272 of the 1996 Act. There, Bell operating companies are generally required to establish a separate affiliate for manufacturing activities, origination of out-of-region interLATA services, and interLATA information services. Among the separation requirements, the affiliate is to maintain separate "books, records, and accounts, separate officers, directors, and employees," and conduct all transactions with any affiliated BOC "on an arm's length basis with any such transactions reduced to writing and available for public inspection."²⁰

To be sure, no separate affiliate requirement, no matter how strongly specified, would be sufficient to safeguard against cross-subsidization if the underlying cost allocations, in accordance with Part 64 procedures, are distorted as previously discussed. If costs are underallocated to OVS, the subsidiary would operate indefinitely on the basis of a too-low cost structure, while telephone ratepayers would be burdened with excessive cost.

The separate affiliate requirement would help ensure that "hidden" transactions do not occur between the parent and affiliate -- e.g., employees of the parent "helping out" informally with some of the functions of OVS ventures, resulting in costs recorded by the parent rather than by the OVS venture. Thus, a separate affiliate would help to ensure that recurring operating

²⁰1996 Act, Sec. 272(2)(b).

expenses properly chargeable to OVS are not instead borne by the parent. More generally, separation would help to enforce the ground rules for cost allocations established in accordance with Part 64 procedures.

To be sure, separation requirements may introduce costs of their own by preventing the firm from fully realizing the economics of scope in offering jointly the services in question. For this reason, the Commission earlier concluded that only non-structural safeguards adopted for the BOCs should apply to the provision of video dialtone by the BOCs.²¹ However, economies of scope would be expected to be less strong for OVS than for video dialtone, combined with telephony. Video dialtone was designed as a conventional common carrier offering with tariffs for video transmission no different, in principle, from the multitude of tariffs filed for other common carrier services. In all cases, the LEC was viewed as provider of transmission capacity for use by others -- whether for voice, data, or video.

OVS services, as defined under the 1996 Act, however, are different. Here, the LEC may select at least a portion of the programming to be transmitted and is permitted to hold ownership interests in programming. Participation by LECs in the video programming industry, would involve weaker (if any) economies of scope in combination with traditional common carrier functions. A separations requirement between the two quite dissimilar attributes would not likely result in large economic penalties.

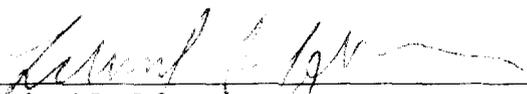
The primary area in which scope economies would be expected to exist is in the construction, operation and maintenance of transmission networks designed to carry both OVS and telephone services. To avoid disturbing these economies, cooperative agreements between the separate affiliates would need to be consummated for those functions. Notably, this task is

²¹*Second Report and Order, Recommendation to Congress and Second Further Notice of Proposed Rulemaking*, CC Docket No. 87-266, FCC Rcd. 5781 (1992), para. 234.

basically no different from that faced by the BOCs for their prospective interLATA services, which will share transmission facilities with intraLATA common carrier services.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on March 24, 1996


Leland L. Johnson

LELAND L. JOHNSON

Mailing Address: 19528 Ventura Boulevard, Tarzana, California 91356
Phone: (818) 716-5854

EDUCATION

Ph.D. Economics, 1957, Yale University
M.A. Economics, 1953, University of Oregon
B.S. Business Administration, 1952, University of Oregon

EMPLOYMENT

1993-present--Consultant specializing in telecommunications economics. Retired from The RAND Corporation.

September 1979-March 1993--Senior Economist. The RAND Corporation, Santa Monica, California.

1978-1979--Associate Administrator, Policy Analysis and Development, National Telecommunications and Information Administration, U.S. Department of Commerce, Washington, D.C.

1968-1978--Manager, Communications Policy Program, The RAND Corporation, Santa Monica, California.

1967-1968--Director of Research, President's Task Force on Communications Policy, U.S. Department of State, Washington, D.C.

1957-1967--Economist, The RAND Corporation, Santa Monica, California.

1956-1957--Instructor, Yale University, New Haven, Connecticut.

1967--Lecturer, International Trade, UCLA.

1965-1966--Visiting Professor, International Trade and Economic Growth, Claremont Graduate School.

1958-1959--Lecturer, (Statistics for Economics and Business), California State College at Northridge.

Telecommunications Policy. Dr. Johnson has evaluated the prospects for direct satellite broadcasting, the use of telephone company facilities, and other means, as competitive alternatives to cable television. He earlier dealt with issues of (a) regulating international telecommunications in response to a growing competitive market structure, (b) maintaining universal domestic telephone service in response to pressures to increase rates for local service, and (c) the role of compatibility standards in telecommunications competition and innovation. As Associate Administrator for Policy Analysis at NTIA in 1978-1979, Dr. Johnson's responsibilities included recruiting staff for a research and analysis office of about 40 staff members, His office focused on issues of (a) restricting government regulation in the domestic telephone and broadcasting fields, (b) expanding competitive pressures in the international communications industry, (c) possibilities for making more effective use of the radio spectrum, and (d) drafting legislation for the Administration and pursuing other policy options in response to problems of protecting individual privacy posed by the rapid growth of computer-based information systems. As Director of Research, President's Task Force on Communications Policy, he directed the staff activities and preparation of the Final Report (the "Rostow" report) delivered to the President in 1968. The report and accompanying staff papers addressed a wide range of issues in the telephone, cable, and broadcasting fields, with numerous specific recommendations for national policy.

PROFESSIONAL MEMBERSHIPS/HONORS

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Adephia Communications Corp.
Great Lakes Cable Coalition
Atlantic Cable Coalition
California Cable Television Association
New Jersey Cable Television Association
National Cable Television Association
Canadian Cable Television Association
Time Warner, Oceanic Communication
Cablevision Industries
Comcast Corp.
Wometco Cable
AGT Limited
AT&T
Southwestern Bell Mobile Systems
Cellular Telecommunications Industry Association
Interstate Natural Gas Pipeline Association
Ford Foundation
Arizona Corporation Commission

AFFIDAVITS, DECLARATIONS AND PREFILED TESTIMONY

New Jersey Bell, application to provide video dialtone service in Dover, New Jersey, W-P-C 6840, Affidavit, February 12, 1993 (on behalf of New Jersey Cable Television Association).

New Jersey Bell, application to provide video dialtone service in Dover and Florham Park area, W-P-C 6838, 6840, Declaration, September 29, 1993 (on behalf of New Jersey Cable Television Association).

Pacific Bell, applications to provide video dialtone service in four metropolitan areas, W-P-C 6913, 6914, 6915, 6916, Affidavit, February 7, 1994; Reply Affidavit March 10, 1994, Reply Declaration January 5, 1995; Second Reply Declaration, January 19, 1995, Declaration April 7, 1995 (on behalf of California Cable Television Association).

Ameritech, applications to provide video dialtone service in five states, W-P-C 6926, 6927, 6928, 6929, 6930, Affidavit, March 10, 1994; Reply Declaration, June 28, 1994 (on behalf of the cable television associations of the five states).

Bell Atlantic applications to provide video dialtone service in five regions, W-P-C 6912, 6966, Declaration, July 28, 1994; Reply Declaration, August 22, 1994 (on behalf of Atlantic Cable Coalition).

Ex Parte submission, Designing Safeguards Against Cross-Subsidization in Video Dialtone Services, Docket No. 87-266, October 3, 1994 (on behalf of Adelphia Communications Corporation, Cablevision Industries, Comcast Corporation, Cox Enterprises, Inc.)

Rebuttal Testimony. In support of Oceanic Communications Application for Certification from the Hawaii Public Utilities Commission, Docket No. 94-0093, December 16, 1994 (on behalf of Oceanic Communications).

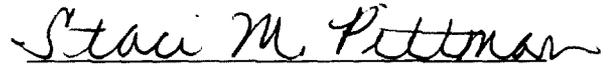
Competition in Wideband Location Monitoring Systems, Motion of Southwestern Bell Mobile Systems, Inc., to accept Supplement to Reply Comments, PR Docket No. 93-61, October 1993 (on behalf of Southwestern Bell Mobile Systems).

An Assessment of the Beacon Initiative, Implementation of Regulatory Framework, Canadian Television Radio Commission, Telecom Public Notice CRTC 94-52, 94-56, 94-58, March 20, 1995 (on behalf of the California Cable Television Association).

November 1995

CERTIFICATE OF SERVICE

I, Staci M. Pittman, do hereby certify that on this 1st day of April, 1996, copies of the foregoing "**Comments and Petition for Reconsideration of the National Cable Television Association, Inc.**" were delivered by first-class, postage pre-paid mail upon the attached list:


Staci M. Pittman

Jackie Chorney
Sr. Legal Advisor to Chairman Hundt
Federal Communications Commission
1919 M Street, N.W. - Room 814
Washington., D.C. 20554

John Nakahata
Legal Advisor to Chairman Hundt
Federal Communications Commission
1919 M Street, N.W. - Room 814
Washington., D.C. 20554

Lauren J. Belvin
Sr. Legal Advisor to Commissioner Quello
Federal Communications Commission
1919 M Street, N.W. - Room 802
Washington., D.C. 20554

Maureen O'Connell
Legal Advisor to Commissioner Quello
Federal Communications Commission
1919 M Street, N.W. - 802
Washington., D.C. 20554

Mary McManus
Legal Advisor to Commissioner Ness
Federal Communications Commission
1919 M Street, N.W. - Room 832
Washington., D.C. 20554

James Casserly
Sr. Legal Advisor to Commissioner Ness
Federal Communications Commission
1919 M Street, N.W. - Room 832
Washington, D.C. 20554

Suzanne Toller
Legal Advisor to Commissioner Chong
Federal Communications Commission
1919 M Street, N.W. - Room 844
Washington., D.C. 20554

Daniel Gonzalez
Legal Advisor to Commissioner Chong
Federal Communications Commission
1919 M Street, N.W. - Room 844
Washington. D.C. 20554

Regina Keeney
Chief, Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W. - Room 500
Washington, D.C. 20554

Larry Atlas
Asst. Bureau Chief, Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W. - Room 500
Washington, D.C. 20554

A. Richard Metzger, Jr.
Deputy Chief, Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W. - Room 500
Washington, D.C. 20554

Meredith Jones
Chief, Cable Services Bureau
Federal Communications Commission
2033 M Street, N.W. - Room 918
Washington, D.C. 20554

Gary Laden
Chief, Policy & Rules Div., Cable Services Bureau
Federal Communications Commission
2033 M Street, N.W. - Room 406
Washington, D.C. 20554

Larry Walke
Cable Services Bureau
Federal Communications Commission
2033 M Street, N.W. - Room 923
Washington, D.C. 20554

Dr. Robert Pepper
Chief, Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W. - Room 822
Washington, D.C. 20554

Dr. Joseph Farrell
Chief Economist, Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W. - Room 822
Washington, D.C. 20554

Richard Welch
Chief, Policy & Program Planning Div. Common
Carrier Bureau
Federal Communications Commission
1919 M Street, N.W. - Room 544
Washington, D.C. 20554

ITS
Federal Communications Commission
2100 M Street, N.W., Suite 140
Washington, D.C. 20037